ASME Journal of Tribology
Online journal at:
https://asmedigitalcollection.asme.org/tribology

In Memoriam: Tribute to President Michael R. Lovell

It is with profound sorrow that we announce the passing of Prof. Michael R. Lovell on June 9, 2024. Professor Lovell, who was the President of Marquette University and a distinguished tribologist, passed away in Rome while traveling with his wife following a courageous 3-year battle with sarcoma.

President Lovell was a renowned tribologist and a Wisconsin Distinguished Professor whose contributions to the field were profound and far-reaching. He earned three degrees in mechanical engineering, culminating in a Ph.D. from the University of Pittsburgh under the supervision of Prof. Michael Khonsari. During his M.S. and Ph.D., he worked on the tribology of ball bearing [1–6] and made trendsetting contributions to understanding the nature of what is known as Dahl friction. Professor Khonsari fondly remembers him as one of the most brilliant students and a joy to work with. No matter how challenging the problem was, he always came up with the correct answer! His academic achievements included publishing over 100 articles in prestigious engineering journals, authoring a dozen book chapters, and co-authoring the influential book *Tribology for Scientists and Engineers*. [7] In addition, he held several US. and international patents, highlighting his innovative impact on the field.

After earning his Ph.D., he began his career as a Senior Development Engineer at ANSYS Inc. in 1994. He then served as an Assistant Professor in the Department of Mechanical Engineering at the University of Kentucky in 1996. From 2002 to 2006, he held the Associate Professor in Industrial Engineering, and Bioengineering position at the University of Pittsburgh, Pittsburgh, PA. Later, in 2007, he was appointed Professor of Industrial Engineering and Bioengineering. During his tenure at the University of Pittsburgh, from 2002 to 2008, he also served as Associate Dean for Research.

President Lovell's last group member and postdoctoral researcher, Dr. Menezes fondly remembers his privileged experience working closely with him from 2008 to 2015. Their journey began at the University of Pittsburgh, where President Lovell served as a Professor and postdoctoral advisor. In 2008, Dr. Menezes joined President Lovell at the University of Wisconsin-Milwaukee (UWM) after Prof. Lovell was appointed Dean of Engineering. Together, they collaborated extensively on various tribology research initiatives, such as material behavior [8,9], machining [10,11], surface texturing [12,13], green lubricants [14], multiphase hybrid lubricants [15,16], metal forming [17], shoe–floor interactions [18], and rock drilling [19] among others.

Menezes emphasizes President Lovell's dedication to elevating UWM into a leading hub for tribology research. His visionary leadership led to recruiting top-tier tribology faculty forming a robust and skilled team. Together, they established the Tribology Consortium at UWM, facilitating partnerships between local industries and academic institutions. The consortium convened monthly meetings, showcasing presentations by esteemed global researchers, to drive knowledge exchange and propel advancements in tribology.

During this time, President Lovell was an active volunteer for the ASME Tribology Division and served on the Executive Committee. He was chair of the Division's Research Committee on Tribology that promoted scientific progress in the field. President Lovell also served as an Associate Editor for the *ASME Journal of Tribology* from 2006 to 2009. In 2012, he led the ASME/STLE International Joint Tribology Conference in Denver, Colorado, as Chair. His contributions to ASME are remembered and cherished. Even after becoming President of Marquette University, he made time to meet with visiting professors in tribology. Professor Jackson recalls his interactions with President Lovell as always being a pleasure and valuable both technically and personally.

Throughout his illustrious career, President Lovell received numerous prestigious awards, underscoring his significant contributions to the field. These include the NSF CAREER Award (1997), the Outstanding International Publication on Bearings from FAG—Germany (1997), the SME Outstanding Young Manufacturing Engineer Award (1999), the ASME Burt Newkirk Award in Tribology (2005), and the Olympus Emerging Academic Innovator Award (2006). He was elected as a Fellow of the American Society of Mechanical Engineers (ASME) in 2008 and held the W. K. Whiteford Endowed Faculty Fellowship from 2000 to 2008. Since 2010, he has held the esteemed title of State of Wisconsin Distinguished Professor.

President Lovell's achievements were recognized by esteemed organizations such as the Society of Tribologists and Lubrication Engineers (STLE) and ASME. He was also honored as a fellow of the National Academy of Inventors. In addition to these accolades, he held influential leadership roles, including serving as the Site Director of the DOE-NETL Institute for Advanced Energy Studies and as Director of the NSF IUCRC Center for e-Design.

President Lovell's impact went well beyond the academic sphere. Following his role as Dean of Engineering at UWM, he ascended to the position of Chancellor and eventually became the 24th President of Marquette University in July 2014. His leadership was characterized by a steadfast dedication to fostering innovation, entrepreneurship, and community revitalization. President Lovell's remarkable ability to inspire and guide others created a vibrant atmosphere that nurtured growth and creativity.

President Lovell's outstanding career and groundbreaking contributions have made a lasting impact on the field of tribology and many other areas. He was more than an exceptional leader; he was a visionary whose work and legacy will inspire future generations. His presence will be deeply missed. Let us honor his memory and contributions and pray for his soul to rest in peace.

Pradeep L. Menezes
Department of Mechanical Engineering,
University of Nevada, Reno,
Reno, NV 89557
e-mail: pmenezes@unr.edu

Michael Khonsari
Department of Mechanical and Industrial Engineering,
Louisiana State University,
Baton Rouge, LA 70803
e-mail: khonsari@lsu.edu

Robert L. Jackson
Department of Mechanical Engineering,
Auburn University,
Auburn, AL 36849
e-mail: jacksr7@auburn.edu

References

[1] Lovell, M. R., Khonsari, M. M., and Marangoni, R. D., 1992, "Evaluation of Ultra-Low-Speed Jitter in Rolling Balls," ASME J. Tribol., **114**(3), pp. 589–594.

[2] Lovell, M. R., Khonsari, M. M., and Marangoni, R. D., 1993, "The Response of Balls Undergoing Oscillatory Motion: Crossing From Boundary to Mixed Lubrication Regimes," ASME J. Tribol., **115**(2), pp. 261–266.

[3] Lovell, M. R., Khonsari, M. M., and Marangoni, R. D., 1996, "Comparison of the Low-Speed Frictional Characteristics of Silicon Nitride and Steel Balls Using Conventional Lubricants," ASME J. Tribol., **118**(1), pp. 43–51.

[4] Lovell, M. R., Khonsari, M. M., and Marangoni, R. D., 1996, "Dynamic Friction Measurements of mos2 Coated Ball Bearing Surfaces," ASME J. Tribol., **118**(4), pp. 858–864.

[5] Lovell, M. R., Khonsari, M. M., and Marangoni, R. D., 1997, "Frictional Analysis of MoS_2 Coated Ball Bearings: A Three-Dimensional Finite Element Analysis," ASME J. Tribol., **119**(4), pp. 754–763.

[6] Lovell, M. R., Khonsari, M. M., and Marangoni, R. D., 1997, "Parameter Identification of Hysteresis Friction for Coated Ball Bearings Based on Three-Dimensional FEM Analysis," ASME J. Tribol., **119**(3), pp. 462–470.

[7] Menezes, P. L., Nosonovsky, M., Ingole, S. P., Kailas, S. V., and Lovell, M. R., *Tribology for Scientists and Engineers: From Basics to Advanced Concepts*, Springer, New York.

[8] Menezes, P. L., KishoreKailas, S. V., and Lovell, M. R., 2009, "Studies on Friction and Formation of Transfer Layer in HCP Metals," ASME J. Tribol., **131**(3), p. 031604.

[9] Menezes, P. L., KishoreKailas, S. V., and Lovell, M. R., 2012, "The Role of Strain Rate Response on Tribological Behavior of Metals," ASME J. Tribol., **135**(1), p. 011601.

[10] Lovell, M. R., Cohen, P., Menezes, P. L., and Shankar, R., 2009, "Tribological Characterization of Machining at Very Small Contact Areas," ASME J. Tribol., **131**(4), p. 042201.

[11] Menezes, P. L., KishoreKailas, S. V., and Lovell, M. R., 2010, "Influence of Inclination Angle and Machining Direction on Friction and Transfer Layer Formation," ASME J. Tribol., **133**(1), p. 014501.

[12] Menezes, P. L., Kishore, Kailas, S. V., and Lovell, M. R., 2010, "Response of Materials as a Function of Grinding Angle on Friction and Transfer Layer Formation," Int. J. Adv. Manuf. Technol., **49**(5), pp. 485–495.

[13] Menezes, P. L., Kishore, Kailas, S. V., and Lovell, M. R., 2011, "Role of Surface Texture, Roughness, and Hardness on Friction During Unidirectional Sliding," Tribol. Lett., **41**(1), pp. 1–15.

[14] Reeves, C. J., Menezes, P. L., Jen, T.-C., and Lovell, M. R., 2015, "The Influence of Fatty Acids on Tribological and Thermal Properties of Natural Oils as Sustainable Biolubricants," Tribol. Int., **90**, pp. 123–134.

[15] Lovell, M. R., Kabir, M. A., Menezes, P. L., and Higgs, C. F., 2010, "Influence of Boric Acid Additive Size on Green Lubricant Performance," Philos. Trans. R. Soc., A, **368**(1929), pp. 4851–4868.

[16] Reeves, C. J., Menezes, P. L., Lovell, M. R., and Jen, T.-C., 2015, "The Influence of Surface Roughness and Particulate Size on the Tribological Performance of Bio-Based Multi-Functional Hybrid Lubricants," Tribol. Int., **88**, pp. 40–55.

[17] Menezes, P. L., Kishore, Kailas, S. V., and Lovell, M. R., 2012, "Analysis of Strain Rates and Microstructural Evaluation During Metal Forming: Role of Surface Texture and Friction," Tribol. Trans., **55**(5), pp. 582–589.

[18] Moore, C. T., Menezes, P. L., Lovell, M. R., and Beschorner, K. E., 2012, "Analysis of Shoe Friction During Sliding Against Floor Material: Role of Fluid Contaminant," ASME J. Tribol., **134**(4), p. 041104.

[19] Menezes, P. L., Lovell, M. R., Avdeev, I. V., and Higgs, C. F., 2014, "Studies on the Formation of Discontinuous Rock Fragments During Cutting Operation," Int. J. Rock Mech. Min. Sci., **71**, pp. 131–142.